

What is claimed is:

1. A composition comprising PKB Ser473 kinase having at least 20,000-fold increased purity compared with a crude membrane extract of human embryonic kidney (HEK) 293 cells, which when associated with cellular proteins has a PKB Ser 473 kinase activity and has an apparent molecular weight of 450-650 kDa.
2. The composition of claim 1, having at least 50,000 fold increased purity.
3. The composition of claim 1 or 2, wherein said composition comprises a protein having a molecular weight of about 48kDa as estimated by SDS gel electrophoresis.
4. The composition of any one of the preceding claims, wherein said composition comprises a protein having a molecular weight of about 58kDa as estimated by SDS gel electrophoresis.
5. Purified PKB Ser 473 kinase protein having at least 20,000-fold increased purity compared with a crude membrane extract of human embryonic kidney (HEK) 293 cells, which when associated with cellular proteins has a PKB Ser 473 kinase activity and has an apparent molecular weight of 450-650 kDa when fractionated by gel filtration chromatography.
6. The purified protein of claim 5, wherein the kinase has at least 50,000 fold increased purity.
7. A purified cell extract that has measurable PKB Ser 473 kinase activity in 0.2 µg of protein when detected in a kinase assay in which a PKB peptide substrate is phosphorylated with <sup>32</sup>P labelled phosphate, wherein the

kinase elutes with an apparent molecular weight of 450-650 kDa when fractionated by gel filtration chromatography.

8. The purified cell extract of claim 7, wherein the kinase elutes with an apparent molecular weight of about 550 kDa when fractionated by gel filtration chromatography.
9. The purified cell extract of claim 7 or 8, wherein the kinase is enriched at least 50,000-fold compared with a crude extract of human embryonic kidney (HEK) 293 cells.
10. A method for producing antibodies which selectively bind to a purified PKB Ser 473 kinase protein comprising the steps of:
  - i) administering an immunogenically effective amount of a PKB Ser 473 kinase immunogen to an animal;
  - ii) allowing the animal to produce antibodies to the immunogen; and
  - iii) obtaining the antibodies from the animal or from a cell culture derived therefrom.
11. A PKB Ser 473 kinase -specific antibody.
12. A method of screening for a potential modulator of PKB Ser 473 kinase activity comprising the steps of:
  - i) incubating the purified PKB Ser 473 kinase protein of claims 5 or 6 with a compound;
  - ii) determining PKB Ser 473 kinase activity;
  - iii) detecting an alteration in the PKB Ser 473 kinase activity in the presence of the compound relative to when said compound is absent, said alteration being indicative of a potential modulator of PKB Ser 473 kinase activity.

13. The method according to claim 12 wherein said alteration in the PKB Ser 473 kinase activity is a decrease in PKB Ser 473 kinase activity, said decrease being indicative of a potential inhibitor of PKB Ser 473 kinase.
14. The method as claimed in claim 12 wherein said alteration in the PKB Ser 473 kinase activity is an increase in the PKB Ser 473 kinase activity said increase being indicative of a potential activator of PKB Ser 473 kinase.
15. A modulator of PKB Ser 473 kinase activity.
16. The modulator of claim 15 for use as a pharmaceutical.
17. The use of the modulator of claim 15 for the manufacture of a medicament for the treatment or prophylactic treatment of a condition associated with cell growth.
18. The use as claimed in claim 17, wherein said condition is tumour cell growth.
19. The use of the modulator of claim 15 for the manufacture of a medicament for the treatment or prophylactic treatment of diabetes, neurodegenerative conditions or erectile dysfunction, wherein said modulator is an activator.
20. A method for inhibiting cancer cell growth comprising contacting a cancerous cell with a PKB Ser 473 kinase inhibitor.
21. A method for treating a disease associated with an anomaly in cell growth comprising administering to a subject a pharmaceutically effective amount of a PKB Ser 473 kinase inhibitor.

21. A method for treating a disease associated with an anomaly in cell growth comprising administering to a subject a pharmaceutically effective amount of a PKB Ser 473 kinase inhibitor.
22. A method for treating a disease associated with an anomaly in insulin regulation, neurodegeneration or erectile dysfunction comprising administering to a subject a pharmaceutically effective amount of a PKB Ser 473 kinase activator.